Precalc Warm Up # 6-4

Find the exact values of the 6 trig functions of θ given that $\cot\theta = -\frac{\sqrt{11}}{3}$ and $\cos\theta < 0$

$\sin\theta$ $\qquad$ $\csc\theta$

$\cos\theta$ $\qquad$ $\sec\theta$

$\tan\theta$ $\qquad$ $\cot\theta = -\frac{\sqrt{11}}{3}$

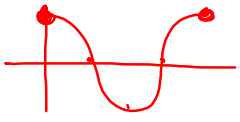
HW Questions: p. 352

45) $y = \frac{2}{3}\cos\frac{1}{2}\left(x - \frac{\pi}{2}\right)$

Amp $= \frac{2}{3}$

Per $= 4\pi$

Rt $\frac{\pi}{2}$

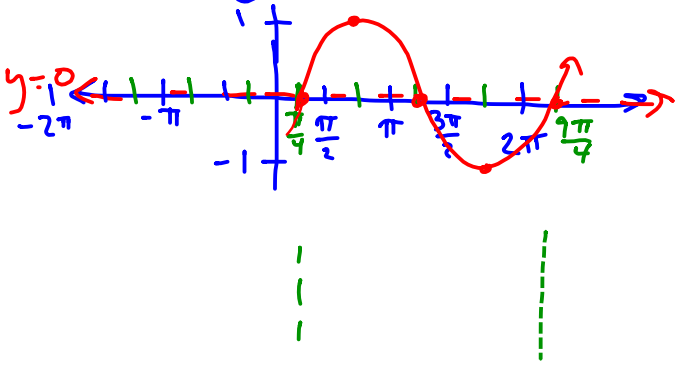


39) $y = \sin\left(x - \frac{\pi}{4}\right)$

Per $= 2\pi$

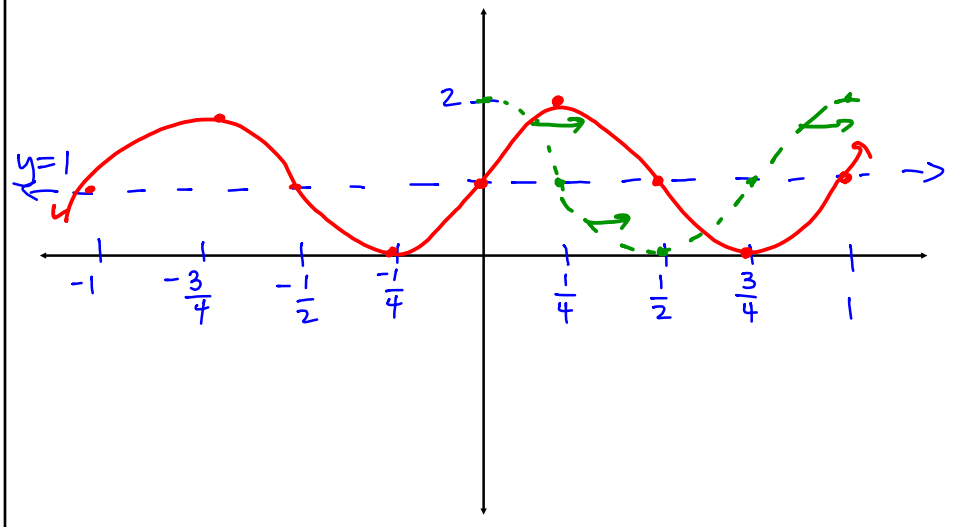
Amp $= 1$

Rt $\frac{\pi}{4}$



49) $y = \cos\left(2\pi x - \frac{\pi}{2}\right) + 1$ Per $= \frac{2\pi}{2\pi} = 1$ Rt $\frac{1}{4}$

$y = \cos 2\pi\left(x - \frac{1}{4}\right) + 1$ Amp $= 1$ up 1



53) $y = 5\cos(\pi - 2x) + 2$

$y = 5\cos\left[(-2)\left(x - \frac{\pi}{2}\right)\right] + 2$ ← up 2

Amp = 5 ; r_y ; Rt $\frac{\pi}{2}$

and $|k| = 2$

So per $= \frac{2\pi}{2} = \pi$

65) $r = 0.85 \sin \frac{\pi t}{3}$ t = time in sec, r = l/sec

a) time in one cycle:

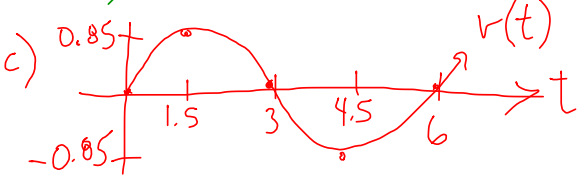
Per $= \frac{2\pi}{\frac{\pi}{3}} = 2\pi \cdot \frac{3}{\pi}$

$=$ 6 seconds.

b) # of cycles per min.

$\frac{1 \text{ cycle}}{6 \text{ sec}} \cdot \frac{60 \text{ sec}}{1 \text{ min}} = \frac{10 \text{ cycles}}{\text{min}}$

c)



Classwork worksheet:
Investigate Tangent
(pdf is on website: Tangent WS)

Homework is written on the back of the Tangent worksheet. Write it on a separate piece of paper and attach to the worksheet. Due turned in on Monday.